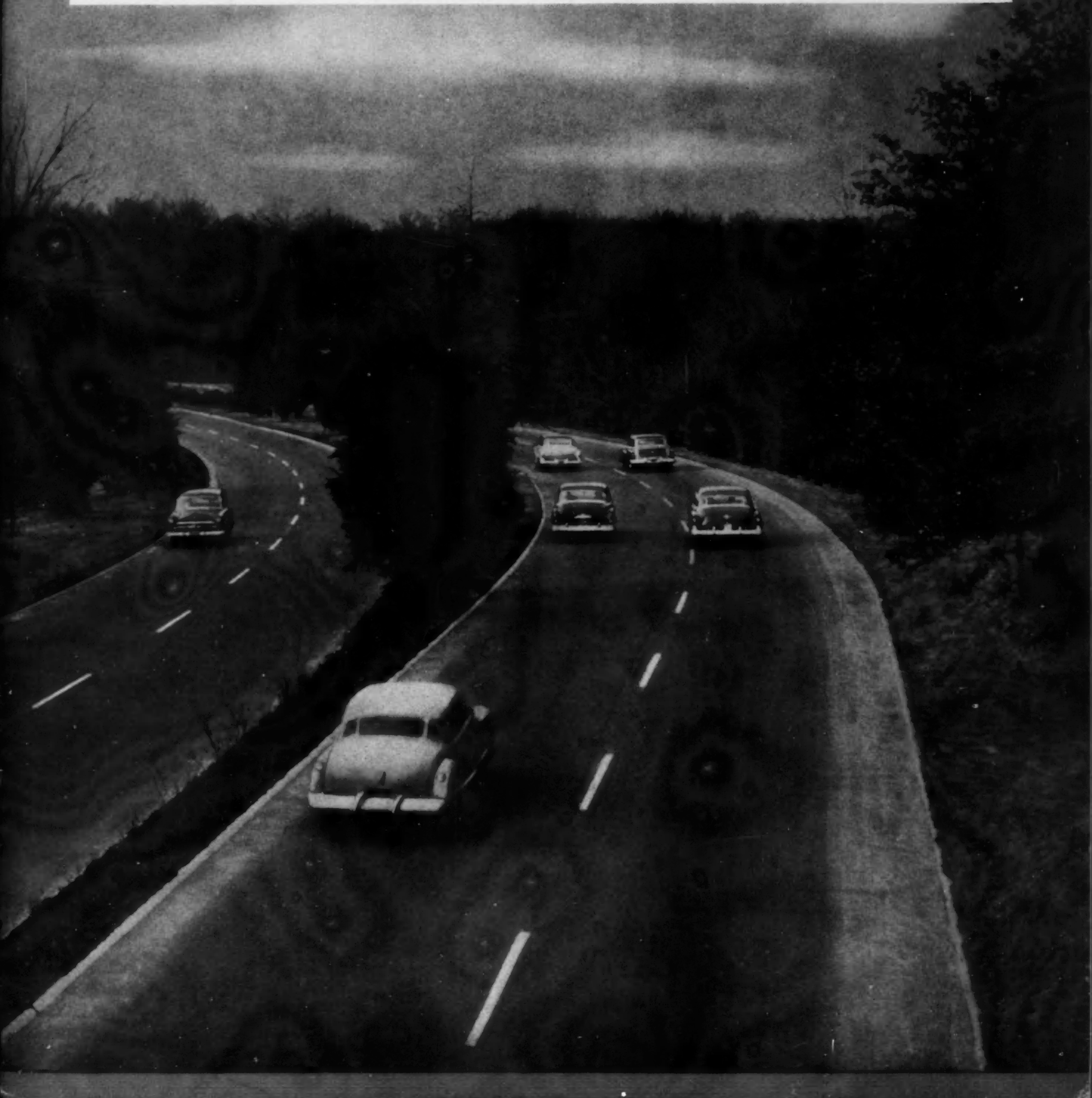
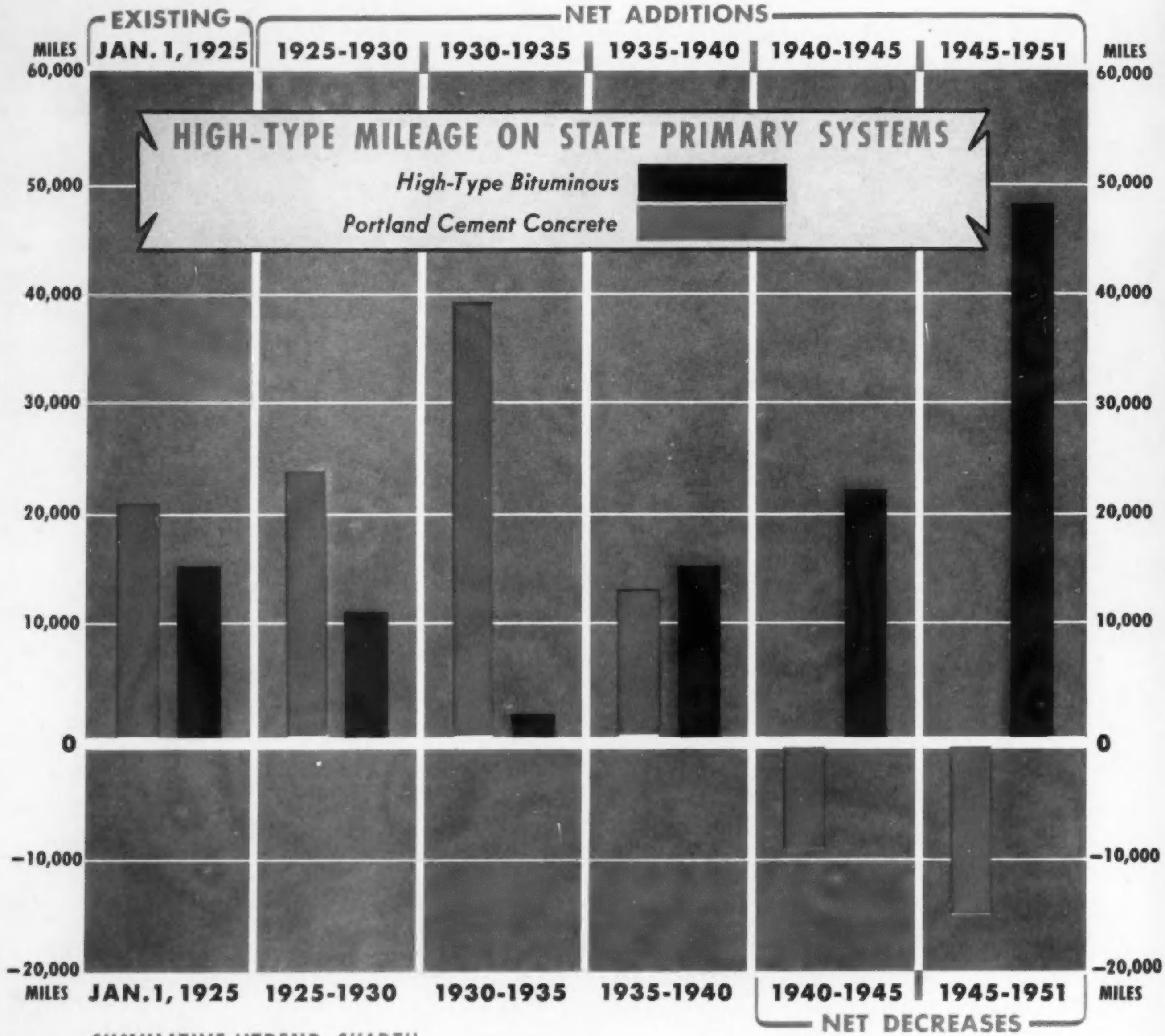
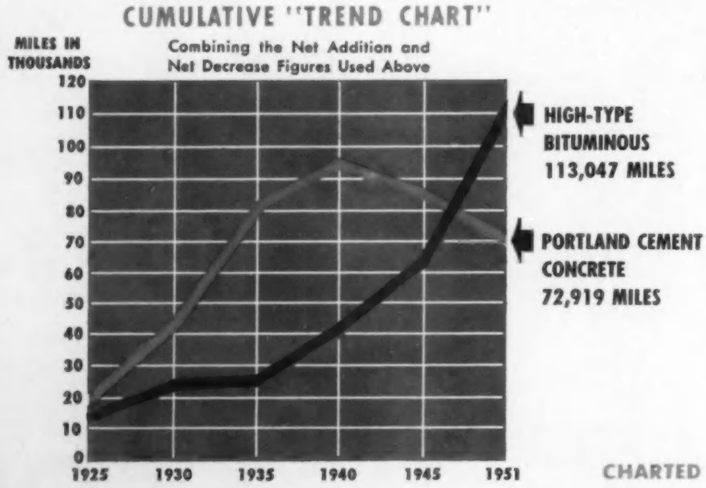
ASPHALT INSTITUTE *Quarterly*

JANUARY 1953







Mileages charted are as of January 1st for each year shown. The sources are Highways Education Board for 1925; followed by American Association of State Highway Officials through 1945; and U. S. Bureau of Public Roads to 1951.

CHARTED BY THE ASPHALT INSTITUTE — JANUARY 1953

ASPHALT INSTITUTE *Quarterly*

VOL. 5, No. 1 JANUARY 1953

The Asphalt Institute Quarterly is published by the Asphalt Institute, a national, non-profit organization sponsored by members of the industry for the purpose of promoting interest in the use of asphaltic products.

The names of the Member Companies of the Institute, who have made possible the publication of this magazine, are listed herein on page 15.

EDITORS

Bernard E. Gray, *President of The Asphalt Institute*
Ernest M. Bristol, *Director of Public Relations*

CONTENTS

COVERS

Featured on the covers is a picture, taken by Bernard Gray for this issue, showing the Merritt Parkway in Connecticut, near Stamford. Opened to traffic originally as a portland cement concrete pavement in 1938, this section has here been resurfaced with 2" of asphaltic concrete. On the recent relocation to improve alignment of the Parkway near Greenwich (see page 11), selected fill and macadam were used for the new foundation.

The larger of these two charts pictures in graphic form *mileage built* during each of the *periods* shown. The smaller chart shows the *cumulative trend,* finally well up for high-type bituminous mileage and down for portland cement concrete. The negative figures for the latter largely reflect the resurfacing of thousands of miles with asphalt.

EDITORIAL

The year 1953 promises to be one of the most fruitful in modern times. Already there is a rebirth of that pioneer spirit, formerly such a distinguishing characteristic of the American people. Slowly disappearing, but nevertheless disappearing, is the atmosphere of frustration and helplessness. There is instead a feeling not merely of strong hopefulness but even more of conviction that the resources of America, both material and spiritual, are capable of overcoming all the difficulties ahead no matter how great they may appear. We are beginning to appreciate more adequately the very great worth of these inherent resources and, in place of an attitude that our future will be determined by someone else, whether a foreign country or an individual, we now propose to lay out our own plan of action and make it work.

Today we are so close to the rapid sequence of technological developments that we cannot fully appreciate their magnitude. We read statistics on great increases in numbers of motor cars and trucks and the almost intolerable congestion on streets and highways. Do we realize that these happenings are only incidents in the larger revolution brought about through cheap and readily available power? The internal combustion engine, whether of the conventional type or the newer diesel, jet, and rocket varieties, not only powers the automobile and the locomotive but the airplane as well. Adapted to tractors and a multitude of stationary machines, it has literally driven population from the farm. This trend will continue for a long time as fewer people are needed to produce food and more and more are required to provide housing, clothing, and industrial products which furnish full employment and contribute to a higher standard of living.

We are only in the very early stages of this transition from a kind of society dependent upon horse-drawn vehicles, to that potentially possible with more rapid transport by land and air. It would be a bold man indeed who would pretend to define with any exactness the manner of living a hundred years hence.

Some courses of action, however, fortunately seem clear. There must be better roads, better railroads, and better airfields. Obviously we cannot tear down and rebuild all our cities and towns, so the auxiliary needs in regard to parking and proper policing also must receive far more attention than at present. Needless to say, *in an atomic age,* every effort must be made to disperse traffic rather than to concentrate it. The mere fact that 80% of the traffic today is on 20% of the road mileage does not necessarily mean that this 20% should be improved to the limit to carry the 80%. In the society of the future it will be much better to have "80%" of the traffic rather uniformly dispersed over *at least* half of the roads, with a larger part of industry and housing similarly dispersed. These needs now are being met both through extensive salvage of existing roads and new construction where modernization of the older highways is impracticable.

One significant technological development has been very *rapid construction* of asphalt surfaces through the use of improved mixing and placement equipment, while another has been application of the *new science of soil mechanics* which makes possible the building of heavy-duty foundations at such substantial savings over former methods. The chart on the opposite page is a graphic picture of important changes in the make-up of the American State Highway System—showing the steady, definite trend toward increased mileage of heavy-duty asphalt pavement which has resulted through modern research.

HIGHWAY MODERNIZATION USING ASPHALT

by
W. L. Hindermann
District Engineer, The Asphalt Institute

Without detouring traffic, Minnesota resurfaces, spreading surfacing course of asphaltic concrete on 20-mile project, north of Beaver Bay, St. Louis County.
Photo: Hindermann

"Members of the Sixty-eighth General Assembly: The most urgent of the immediate tasks confronting the State is the highway program . . ."

Doesn't this strike a familiar note? Forty-seven other State Legislatures, like this one, are confronted with this same problem. Roads, like everything else, wear out. They do not last forever and perhaps many did not last as long as had originally been planned. Consequently, engineering is challenged to modernize these old, rapidly deteriorating roads. Modernization must be accomplished with the maximum salvage. The more prudently this is done the more it fits the category of the highway dollar-stretcher. In the range of methods employed over the years, asphalt resurfacing *predominantly* has refreshed these rapidly-aging roads. It has lengthened the useful years of the road as it was approaching the end of its expected, or unexpectedly shortened, life.

These old pavements are becoming rough and uneven under the steadily increasing traffic volumes and loads and, worse, they are not wide enough to accommodate traffic safely and expeditiously. In numerous instances both the vertical and horizontal alignment is inadequate for the safety of the rapidly-increasing, high-speed traffic.

Today one can observe thousands of miles of our highways whose life has been prolonged and greatly improved by asphalt resurfacing. Many roads which people thought were practically worn out are now more usable than ever before. Unanimous opinions have been expressed that asphalt resurfacing opens an advantageous means of extending pavement life. Old and deteriorated pavements which were no longer capable of carrying traffic safely have been turned into smooth, serviceable highways. Resurfacing at periodic intervals of fifteen to twenty years can extend the life of pavements indefinitely.

(Above) Illinois' Route #51, South of Bloomington, as resurfaced in 1952, with 3" of Asphaltic Concrete, placed on the old Portland Cement Concrete pictured at left.
Photos: Hindermann

ACCEPTED MODERNIZATION METHODS

Asphalt resurfacing of old pavements is not new. The records show that prior to 1935 twenty-three states had let their first contracts for this type of work, while the State of New York was among the first to introduce this salvage procedure in contracts for asphalt resurfacing in 1920. The basic thinking was to utilize the old road-bed value to the fullest and to strengthen and widen the roads whenever feasible.

(Above) 3" Asphaltic Concrete resurfacing over former Portland Cement Concrete (Left). On Illinois' Trunk Highway #88, north of Peoria. A project in the Illinois program which in 1952 modernized 765 miles with Asphalt.

(Above) On Wisconsin Trunk Highway #12, at Fallcreek, this 3" Asphaltic Concrete resurfacing in 1952, placed over the former Portland Cement Concrete (Left), produced a smooth, long-lasting pavement.

Photos: Hindermann

Relocating and rebuilding may be necessary and economical for sight distances where poor vertical and horizontal alignment are encountered. Thousands of miles of road can be restored and modernized by constructing a few grade changes and relocations, widening and resurfacing, with undersealing when necessary.

The Highway Research Board recognized the importance of salvaging old pavements and appointed a committee in 1945 to study the problem. In its 1952 report this committee made the following statement:

> "Resurfacing is now recognized and accepted by many states, counties, cities, and the Bureau of Public Roads as an economical, convenient and highly satisfactory means of salvaging old pavements. Resurfaced pavements have proven adequate to serve the increased wheel-loads now operating on the streets and highways. In addition to providing a smooth, skid-resistant surface, resurfacing waterproofs the subgrade, reduces impact stresses, and imparts considerable strength to the road structure by the addition of its inherent strength."

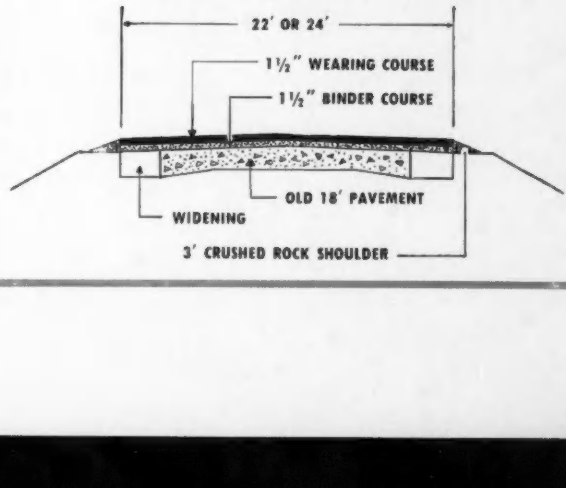
CONSIDERATIONS IN THE REHABILITATION PROGRAM

Cost is of prime importance in this dollar-stretching procedure. The handling of traffic during modernization is also of utmost importance. Detours are undesirable and very costly. Long detours involve the loss of time to the traveler as well as increased expense due to increased motor vehicle operating costs. Many times the detours provided are inadequate for the traffic and may require rebuilding after they have been used.

Asphalt resurfacing can be accomplished without detours and also reduce to a minimum the amount of inconvenience to traffic during the construction period. Modern construction equipment and methods permit the surfacing to be constructed in one traffic lane while one-way traffic can continue in the other lane through the comparatively short distance in the vicinity of the paving operations. After a few hours, traffic can travel over the newly-laid asphalt surface. Many systems for shuttling traffic through these construction areas have been devised.

Investigation of the present pavement in light of its use as a base will indicate what preparatory work must be done to correct deficiencies before the new surface is placed. There are many pavements where the subgrade support is satisfactory and it may be necessary only to level up, strengthen and widen the existing pavement in order to develop a modern adequate road. On other sections it may be necessary to do asphalt undersealing and some patching before resurfacing. On badly broken pavements many states have obtained satisfactory results by placing a blanket course of granular material over the old surface on which the final surface is then placed. It has been found that even though these areas are badly broken up there is seldom need for any additional salvage procedure to prevent the old pavement from moving under traffic. Further stability when necessary can often be secured by increasing the thickness of the blanket course at a lesser cost than by removing the old slab.

FIGURE 1
ILLINOIS WIDENING AND RESURFACING OF OLD 18 FOOT CONCRETE PAVEMENT



(Above) Minnesota's Trunk Highway #218, near Northfield, as resurfaced with Asphalt in 1948, over former Portland Cement Concrete (Left). Minnesota has so modernized more than 500 miles since 1944.
Photos: Minnesota Dept. of Highways

Continued from page 5

Despite the variety of methods there seems to be fair agreement that an asphalt resurfacing should be at least three inches thick and laid in two courses.

ILLINOIS' RESURFACING WITH ASPHALT

Typical of resurfacing carried out by the states is that which has been actively pursued by the Illinois Division of Highways. This state first started resurfacing its old pavements in 1933 when 15 miles of sheet asphalt and bitumious concrete were used to resurface certain critical sections on the state highway system, principally on old surfaced streets within the limits of municipalities. However, starting with 1942, a very active program was begun and has been carried on at an increasing rate ever since. In 1942, 157 miles of old portland cement concrete pavements were resurfaced and in 1952 approximately 765 miles were rehabilitated by this method. During this eleven-year period over 2,700 miles of trunk highways have been restored in this resurfacing program.

Before old pavements are resurfaced in Illinois a certain amount of patching is done together with widening to either 22 or 24 feet, — the latter on heavy truck traffic routes. On all of this pavement restoration the widening and resurfacing are constructed without detouring delays. Tack coats are applied one-half width at a time with very little inconvenience to traffic; then the bitumen is covered with a small amount of sand put on with a tail-gate spreader so as not to pick up.

Illinois has found that the laying of a scratch or wedge course has helped considerably in developing a better riding surface. These scratch courses fill in the irregularities and depressions particularly edge distortions. There has been developed an improvement for the mechanical pavers in the form of a sled or ski attachment which has worked out very satisfactorily. The rate of this scratch or wedge course is usually in the neighborhood of 60 pounds per square yard or an average ½-inch thickness. This leveling up course is then surfaced with a 1½ inch binder course laid in the usual manner with a mechanical paver. A final 1½ inch surface course completes the resurfacing operation. Three foot crushed stone shoulders are placed adjacent to the edge of the finished resurfaced mat. After this three foot rock shoulder has been placed, there is presented to the motorist a very pleasing, modernized, wide road. **(See Figure 1).**

IOWA RAPIDLY RESURFACING

Iowa's resurfacing program for the past two years can be classed as emergency stage construction. In this procedure the existing portland cement concrete pavement is patched, strengthened in spots by asphaltic concrete overlays, and then surfaced with 3 inches of hot asphaltic concrete laid in two courses. On many of these pavements a considerable amount of sloping curb is encountered. At these locations the pavement is resurfaced between the curbs. When the resurfacing has been completed the shoulders are built up with earth. **(See Figure 2).**

(Right) Wisconsin's Trunk Highway No. 29, in Clark County, east of Thorp, as resurfaced with Asphalt in 1949, over former Portland Cement Concrete (Above), as part of the state's pavement life extension program.
Photos: Hindermann

FIGURE 2
IOWA STAGE CONSTRUCTION RESURFACING OF OLD 18 FOOT PAVEMENTS

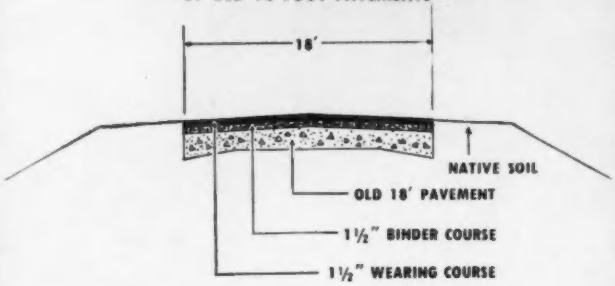
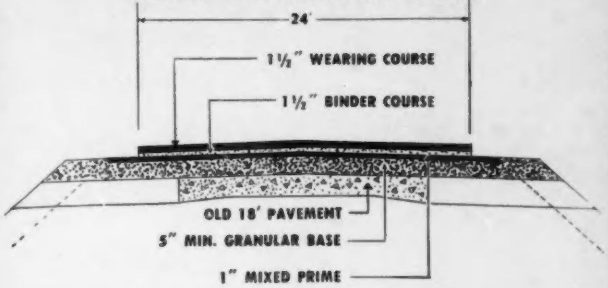


FIGURE 3
MINNESOTA RESURFACING METHOD WHEN A BLANKET OR GRANULAR BASE IS USED



Some of Iowa's projects do not involve any widening of structures or of the pavement; neither are there any shoulders provided; and there are no vertical or horizontal alignment changes. It has been found necessary to follow this emergency program in order to cope with the rapid deterioration of about 1,000 miles of pavement, much of which was built in the late '20s and early '30s. It is contemplated that completion of this modernization program will follow, which will involve widening pavements to 24 feet, together with necessary regrading and lengthening of drainage structures.

MINNESOTA'S RESURFACING RECORD

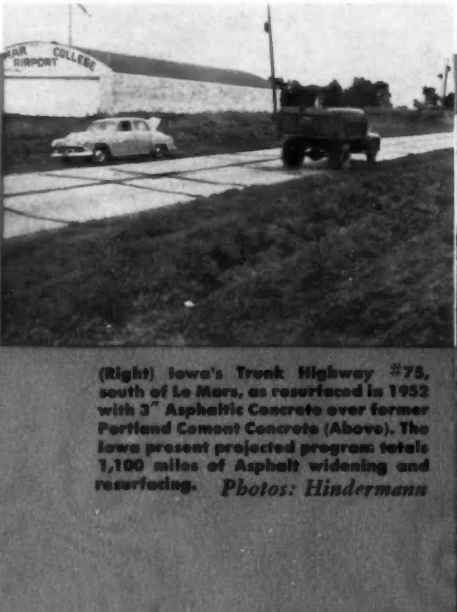
In Minnesota some earlier resurfacing of old portland cement concrete pavements was carried out by the Maintenance Division in order to improve riding qualities and retard deterioration. Some of this work was started as early as 1936. In 1938 an existing 18 foot pavement was widened and resurfaced, and today it is in excellent condition. In 1944 there was started a resurfacing program involving over 500 miles of 18 foot pavements which were too narrow and were showing signs of distress. This restoration program has been substantially carried out, and the average age of pavements which have been rehabilitated to date is 23.7 years. The ages of the pavements which were resurfaced ranged from 10 to 30 years.

The widening and resurfacing of old concrete pavement in Minnesota may be of two types. It may consist of placing two 1½ inch courses, totalling 3 inches, directly on the pavement which has been widened. On pavements which are badly cracked and distorted, or which have pumping tendencies, a granular lift or blanket course of at least 5 inches is placed directly over the pavement. This granular lift is given a prime treatment after which it is surfaced with 3 inches of hot asphaltic mixture laid in two courses. Both of these types have shown good performance. (See Figure 3).

MODERNIZATION PROGRAM FAVORABLY RECEIVED

This program has won the acceptance of many millions of highway-users. The traveling public appreciates the smooth, safe-driving surfaces on widened roadways which are developed by these asphalt resurfacing methods. Many drivers are apparently more interested in smooth, wide surfaces than alignment changes.

This modernization has been an ingenious, effective, long-lasting development by the highway engineer in meeting a problem with limited money available. It has been proven that old pavements can be salvaged in utilizing them as foundations; that much can be saved by saving what has been built.



(Right) Iowa's Trunk Highway #75, south of Le Mars, as resurfaced in 1952 with 3" Asphaltic Concrete over former Portland Cement Concrete (Above). The Iowa present projected program totals 1,100 miles of Asphalt widening and resurfacing. *Photos: Hindermann*

OHIO EFFICIENTLY PROLONGS THE LIFE OF PAVEMENTS W

U. S. Route 23 — Wood County State Project 370 — Extending south from Michigan State Line. (Right) Asphaltic Concrete Resurfacing — 1950. (Below) Former Portland Cement Concrete Pavement.

U. S. Route 30 — Van Wert County State Project 368 — Extending between the cities of Van Wert and Delphos. (Right) Asphaltic Concrete Resurfacing — 1949. (Below) Former Portland Cement Concrete Pavement.

U. S. Route 30-N — Van Wert County State Project 290 — Beginning at the north county line and extending to the city of Van Wert. (Right) Asphaltic Concrete Resurfacing — 1948. (Below) Former Portland Cement Concrete Pavement.

TS WITH ASPHALT

Photos: Ohio Department of Highways

U. S. Route 36 — **Champaign County State Project 377 — Beginning at the west county line and extending towards the village of Saint Paris. (Right) Asphaltic Concrete Resurfacing — 1948. (Below) Former Portland Cement Concrete Pavement.**

U. S. Route 25-N — **Allen County State Project 315 — Partly in Lima and extending beyond the corporation limits. (Right) Asphaltic Concrete Resurfacing — 1944. (Below) Former Portland Cement Concrete Pavement.**

U. S. Route 36 — **Champaign County State Project 27 — Beginning at the west corporation limits of Saint Paris and extending to Urbana. (Right) Asphaltic Concrete Resurfacing — 1946. (Below) Former Portland Cement Concrete Pavement.**

MODERNIZATION WITH ASPHALT

IN WASHINGTON

Cheney to Four Lakes, on Washington's State Highway #11. (Left) Former Portland Cement Concrete pavement. (Below) Resurfaced with Asphaltic Concrete in 1952.

(Left) Scaled and raveled sections of former pavement. (Below) Completed Asphaltic Concrete resurfacing and new 10' shoulders.

(Left) Patched sections of former pavement. (Below) Re-surfaced with 2½" Asphaltic Concrete pavement.

Photos: Ryker

IN TEXAS

U. S. 75 in Texas, north of Fairfield. (Left) Former Portland Cement Concrete pavement. (Below) Resurfaced with 2½" Asphaltic Concrete in 1951.

U. S. 81 in Texas, south of Hillsboro. (Left) Former Portland Cement Concrete pavement, failures due to pumping joints. (Below) After Undersealing, resurfaced with 4" Asphaltic Concrete.

U. S. 28 in Texas' Clay County. (Left) Former Portland Cement Concrete pavement. (Below) Resurfaced with 5" Asphaltic Concrete in 1952.

Photos: Wallace

IN NEW JERSEY

In Montclair on Bloomfield Avenue. Former granite block pavement, with street-car tracks.

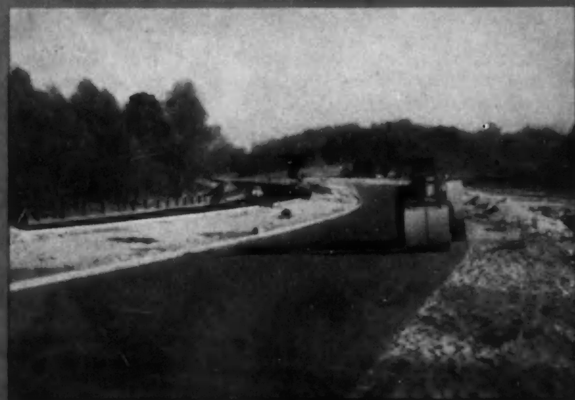
Laying asphalt binder course during resurfacing, without detouring traffic.

Finished 3" Asphaltic Concrete Resurfacing.

Photos: Spencer

IN NEW ENGLAND

Relocation on Connecticut's Merritt Parkway. Placing selected soil sub-base, near Greenwich.



Finished Asphaltic Concrete at left; rolling binder course at right.

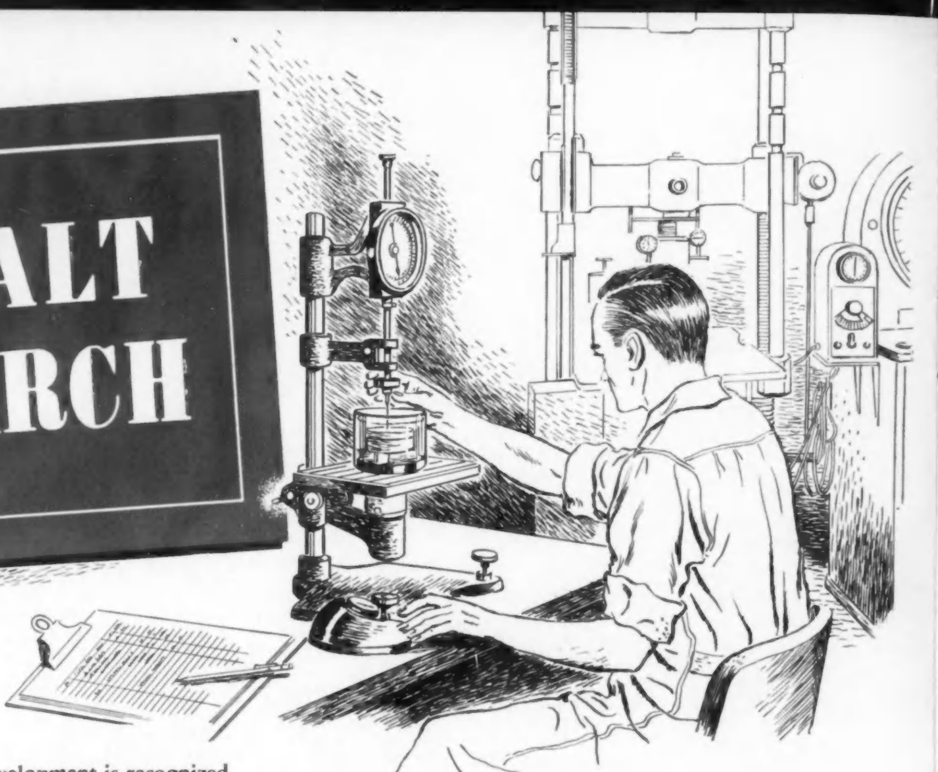
Completed dual lane parkway relocation; Asphaltic Concrete Surface. (Cross-section below).

Photos: Gray

PAVEMENT CROSS-SECTION

SUB-BASE: SELECTED SOIL, 6" to 8" IN FILLS; 12" IN CUTS.

ASPHALT RESEARCH



The necessity for research and development is recognized by the major industries of this country and millions of dollars are spent annually in this phase of industrial activity. The development of synthetics, plastics, and numerous other modern commodities can be traced directly to the persistent efforts of the research engineer. This necessary function has long been recognized by the asphalt industry and for years the Asphalt Institute and its Member Companies have been coordinating their efforts in the research field. The preamble to their functional outline, "Procedures for Engineering Development and Technical Activities of the Asphalt Institute", reads as follows: "The basic responsibility and authority for initiating and prosecuting of engineering and development activities of the Asphalt Institute shall be shared jointly by member companies through their duly authorized representatives."

The forty-four Member Companies of the Asphalt Institute all have large research and laboratory facilities available. These research sections are staffed by some of the best technical advisers in the industry. The Institute also has a laboratory available which is staffed by technicians who have had long experience in the use and development of asphalt. By an intelligent coordination of the work of these asphalt authorities, much of the modern progress in the understanding of the qualities of asphalt and its proper use have been developed.

The European Members also participate in these technological and research activities with a result that world-wide information can often be utilized in the consideration of asphalt development. These research activities cover almost every field of asphalt use, with consideration of all phases of highway and airfield construction.

In addition there is a Special Projects Section carrying on numerous investigations in connection with the use of asphalt in hydraulics. Much of this work has been coordinated with the U. S. Bureau of Reclamation in Denver, Colorado, and through the efforts of this section, the first truly low-cost canal lining has been developed. The Special Projects Section considers all types of canal and reservoir lining, erosion control installations, asphalt dam facings, asphalt grouting, asphalt highway membrane envelopes, which show promise of being a satisfactory substitute in some areas for granular bases, and many other asphalt developments in this field.

All the Member Companies of the Asphalt Institute integrate their technological knowledge with the Institute's research and development program, and some of the greatest developments in asphalt use have originated from such well-coordinated efforts.

INSTITUTE PROJECT COMMITTEES

The research and development activities of the Asphalt Institute are implemented in the following manner: The United States has been divided into five geographical divisions. Each of these divisions, together with Canada, have an operating Engineering and Development Committee. The Chairmen of each of these committees constitute the National Steering Committee. Each Engineering and Development Committee is composed of the technical employees of Member Companies. Each E & D Committee has personnel on Project Committees, and a Project Committee is assigned for each asphalt subject which is to be studied. (See chart, page 13). Active Project Committees include the following:

- Specifications and Test Methods for Asphalt Cement for Paving Only. (Project Committee No. 1)
- Specifications and Test Methods for RC and MC Liquid Asphaltic Materials. (Project Committee No. 2)
- Specifications and Test Methods for SC Liquid Asphaltic Materials. (Project Committee No. 3)
- Revision of Asphalt Institute Construction Specifications. (Project Committee No. 5)
- Specifications and Test Methods Involving the Use of Emulsified Asphalt. (Project Committee No. 6).
- Specifications for Cohesive Soil-Asphalt Construction. (Project Committee No. 8)
- Specifications for Constructing Subgrade and Miscellaneous Bases. (Project Committee No. 11)
- Tests for Resistance to Film Stripping of Asphalt Coated Aggregates. (Project Committee No. 14)

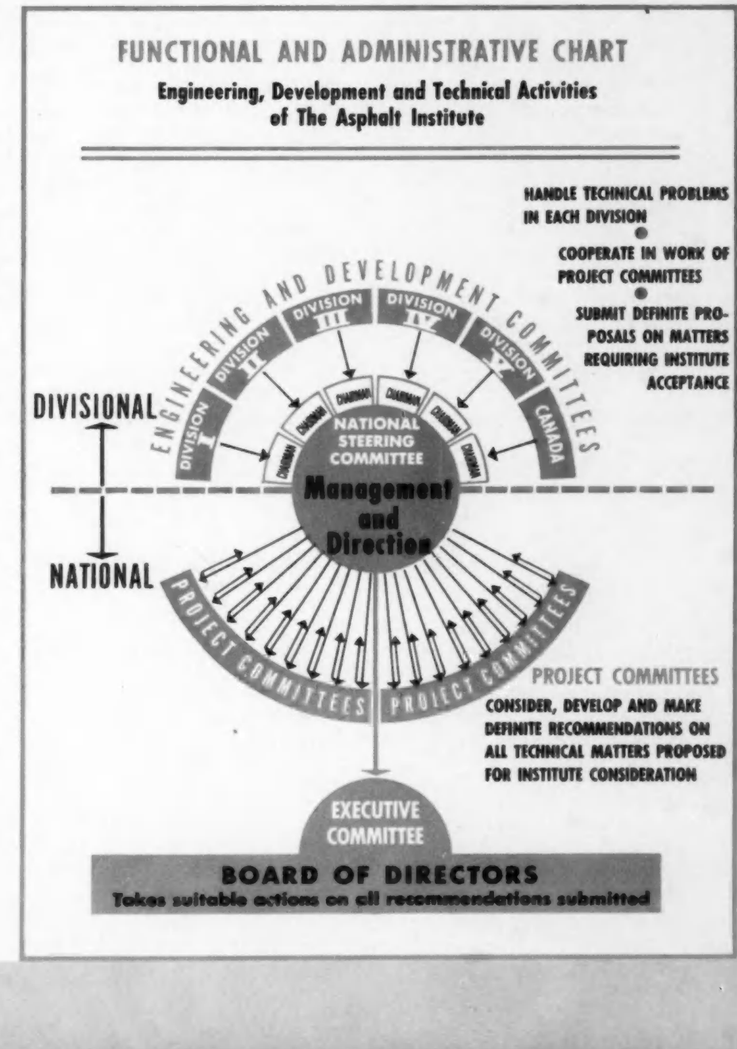
Use of Asphalt for Canal, Reservoir, and Pond Linings. (Project Committee No. 17)
Cooperative Research with the Highway Research Board and U. S. Bureau of Public Roads. (Project Committee No. 18)
Stabilization of Railroad Track Structures and Ballast. (Project Committee No. 23)
Asphaltic Pipe Coatings. (Project Committee No. 24)
Education in Schools and Colleges. (Project Committee No. 25)
Use of Asphalt for Dam Facings, Erosion, and Flood Control. (Project Committee No. 26)
Test Methods and Design of Asphalt Paving Mixes. (Project Committee No. 28)
Effects of Jet Blast and Spillage; Jet Airfield Construction. (Project Committee No. 29)
Quality Factors of Asphalt. (Project Committee No. 30)

ADHESION OF ASPHALT TO AGGREGATES

In addition to the foregoing projects, many other worthwhile asphalt studies are conducted by the E & D and Steering Committees. An important example of their work is contained in the following partial report by D. E. Stevens, member of the Pacific Coast Division E & D Committee, relating to the vital requirement of "Adhesion of Asphalt to Aggregates":

> "I note you state in your paper that 'Generally speaking, the constituents of bituminous binders have little polar activity, being largely composed of high molecular weight hydrocarbons. The bond between bituminous binder and stone is therefore primarily due to "dispersion" forces.'
>
> * * * *
>
> "You have probably noted in your research work on asphaltic materials that the proportion of nitrogen and sulphur constituents increases in general with molecular weight of the asphalt molecule. Thus if one performs a constituent analysis on asphaltic material and separates it into the categories of oil, resins and asphaltenes and then performs nitrogen and sulphur determinations, one finds that the oily fraction contains the smallest proportion of sulphur and nitrogen, the resin contains a higher percentage, while the asphaltenes contain a considerably greater proportion. Inasmuch as the sulphur and nitrogen and other types of 'impurity' ingredients effect an electrical disproportionation in the molecules and therefore result in a certain polarity of the molecules, it holds that the asphaltene portion will have the greatest polar tendency and therefore will effect the strongest bond to an aggregate surface.
>
> "However under normal conditions the polar forces are partially or completely compensated in all probability through the orientation of the asphaltene molecules in the heart structure of the micelle. Residual polar forces of the asphaltenes are partially or completely neutralized by surrounding layers of the resin fraction, which in turn are partially or completely neutralized by the least polar fraction which is the continuous oily constituent medium in which the micelle is dispersed. Thus when an asphalt is applied cold to a stone surface the least favorable relationship is initially set up between asphalt and stone constituting a very weak linkage between molecules from the oily fraction with the stone surface. Through the laws of probability over a period of time, an increasing proportion of the slightly polar oil molecules is displaced by more highly polar resin molecules and it seems probable that a considerable number of the most highly polar asphaltene molecules eventually orient to the aggregate asphalt interface.
>
> * * * *
>
> "There is a certain heat of wetting involved in establishing an asphalt aggregate interface. To disrupt this interface, energy must initially be supplied to the system before a new and lower energy level can be established through the creation of a water aggregate interface. There is thus present in an asphalt aggregate interface a protective 'Energy Hump' similar to that which protects the nucleus of an atom. Heat and time are both factors which increase the height of this protective energy hump, whereas mechanical agitation by traffic is a source of raw energy supplied to the system which can push a given asphalt aggregate interface over the hump and down into the lower energy level of an aggregate water interface."

The preceding theory of stripping advanced by one member of a technical committee illustrates the numerous possibilities that may be extended by coordinated research. The Asphalt Institute and Member Companies in their research and development program are endeavoring to find the answers to many questions which can only be solved by an adequate research program.



DAVID N. MYERS

Chairman of Executive Committee of The Asphalt Institute

David N. Myers is serving as Chairman of the Executive Committee of The Asphalt Institute for 1953. This committee is the planning and governing body of the Institute under the direction of its Board of Directors. Mr. Myers began his career as an asphalt chemist in Cleveland in 1924 following his education and training in Chemical Engineering. He became President of the Byerlyte Corporation in 1931 and has devoted his entire business life to the asphalt industry. He is a member of the Association of Asphalt Paving Technologists, the American Society for Testing Materials, the Petroleum Club, and various national business organizations.

An Asphalt Forecast

By David N. Myers

An Asphalt Institute forecast of future asphalt use indicates well-sustained growth, with the annual total 15 years from now reaching 90% above that of today. This is conservatively consistent with the expansion of use of this valuable material during the past 25 years when the annual requirement rose from 4,000,000 tons to 14,000,000 tons, the major portion for roads and highways.

The Asphalt Institute has a responsibility and a goal to maintain and improve the quality standards of this material. Operating through six divisional Engineering and Development Committees and a national Steering Committee, data is being constantly accumulated and observations widely made in service behavior of various asphalt types under varying conditions of use throughout the country. Membership on these committees is composed of trained engineers from each member company. The work of these divisional and central committees supplements that of the entire engineering staff of The Asphalt Institute operating from national and divisional offices throughout the United States.

The asphalt industry in 1953, as in past years, accepts the responsibility of recommending asphaltic materials of the highest type for each particular paving need. Member Companies of The Asphalt Institute are equipped to meet a steadily increasing requirement for their products, or a sudden accelerated demand for any purpose anywhere in the world, with recognition of the obligation to maintain high standards in both the asphalt product and application procedures.

ENGINEERING OFFICES AND DISTRICTS

801 Second Avenue—New York 17, N. Y.
New Jersey, New York

585 Boylston Street — Boston 16, Massachusetts
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Mills Building—Washington 6, D. C.
Delaware, District of Columbia, Maryland, North Carolina, Pennsylvania, Virginia

Mortgage Guarantee Building—Atlanta 3, Georgia
Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina, Tennessee

1531 Henry Clay Avenue—New Orleans 16, Louisiana
Louisiana, Mississippi

8 East Long Street—Columbus 15, Ohio
Indiana, Kentucky, Michigan, Ohio, West Virginia

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Arkansas, Illinois, Missouri, Wisconsin

854 Builders Exchange Building—Minneapolis 2, Minn.
Iowa, Minnesota, North Dakota, South Dakota

1250 Stout Street—Denver 4, Colorado
Colorado, Idaho, Kansas, Montana, Nebraska, Utah, Wyoming

Fidelity Union Life Building—Dallas 1, Texas
New Mexico, Oklahoma, Texas

211 Littlefield Building—Austin 15, Texas
Texas

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